SLIDE CULTURE PLATES
(Potato Dextrose Agar and Potato Flake Agar)

INTENDED USE
Remel Slide Culture Plates are solid media recommended for use in qualitative procedures for the morphologic identification of various fungi.

SUMMARY AND EXPLANATION
Microscopic examination of fungal reproductive structures and mycelia is usually required for definitive identification. The best method for observing sporulation is the slide culture technique described by Riddell in 1950.[1] Riddell's method required using an agar block of media transferred to a glass slide and placed in a moist chamber. A modified technique developed by Harris in 1986 utilized a layer of water agar to provide humidity.[2] Remel Slide Culture Plates provide a time saving alternative to the traditional method by providing molded plastic blocks of sporulating agar. These agar blocks provide good surface growth on the cover slip for microscopic observation of sporulation.

PRINCIPLE
Potato Dextrose Agar and Potato Flake Agar are formulations developed to promote sporulation of fungi.[3] Potatoes provide a nutritious base for luxuriant growth of fungi. Both media contain dextrose as a growth stimulant. Moisture is provided by a layer of water agar surrounding the blocks of sporulating agar. The water agar contains selective agents to suppress the growth of contaminants.

REAGENTS (CLASSICAL FORMULAE)*
Potato Dextrose Agar:

Dextrose	20.0 g
Potato Infusion	4.0 g
Agar	15.0 g
Demineralized Water	1000.0 ml

pH 5.6 ± 0.2 @ 25°C

Potato Flake Agar:

Potato Flakes	20.0 g
Dextrose	10.0 g
Agar	15.0 g
Demineralized Water	1000.0 ml

pH 5.6 ± 0.2 @ 25°C

Water Agar:

Selective Agents	0.55 g
Agar	15.0 g
Demineralized Water	1000.0 ml

pH 7.0 ± 0.2 @ 25°C

*Adjusted as required to meet performance standards.

PROCEDURE
1. With a sterile inoculating needle or teasing needle, inoculate a small fragment of the fungus to the four edges of each block.
2. Place a sterile cover slip over each block and apply slight pressure to ensure adherence.
3. Replace lid of plate and tape in place.
4. Incubate at 30°C in ambient air or at 22-25°C in the dark for up to 10 days.
5. Examine periodically for growth by placing the entire plate under low power objective of the microscope.
6. When adequate sporulation has developed, remove the cover slip and place on a microscope slide along with a drop of contrasting dye (e.g., Lactophenol Aniline Blue REF R40028); follow established laboratory procedures. Examine the slide under low and high power objectives.
7. The remaining block can be left intact for further incubation if necessary.

QUALITY CONTROL
All lot numbers of Slide Culture Plates have been tested using the following quality control organisms and have been found to be acceptable. Testing of control organisms should be performed in accordance with established laboratory quality control procedures. If aberrant quality control results are noted, patient results should not be reported.

CONTROL	INCUBATION	RESULTS
Aspergillus niger ATCC® 16404	Aerobic, up to 10 days @ 25-30°C	Growth w/ sporulation on block media; inhibition on water agar
Cryptococcus neoformans ATCC® 34877	Aerobic, 72 h @ 25-30°C	No growth
Escherichia coli ATCC® 25922	Aerobic, 72 h @ 25-30°C	No growth

BIBLIOGRAPHY

1. Riddell, R.W. 1950. Mycologia. 42:265-270.
2. Harris, J.L. 1986. J. Clin. Microbiol. 24:460-461.
3. Rinaldi, M.G. 1982. J. Clin. Microbiol. 15:1159-1160.

Refer to the front of Remel *Technical Manual of Microbiological Media* for **General Information** regarding precautions, product storage and deterioration, specimen collection, storage and transportation, materials required, quality control, and limitations.

IFU 20532, Revised April 29, 2008 Printed in U.S.A.

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